



# **InterConnect & Symmetric Ethernet Service Level Agreement**

**National Broadband Ireland**

**AND**

**[Service Provider]**

**Version 1.1**

**Effective from: April 2020**

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## Document Control

### Revision history

| Version | Date       | Status | Revision initials: Revision details |
|---------|------------|--------|-------------------------------------|
| 0.1     | Jan 2020   | Draft  | Initial version                     |
| 0.2     | Mar 2020   | Draft  | Draft version for review            |
| 1.0     | Mar 2020   | Final  | Final for publication               |
| 1.1     | April 2020 | Final  | Final for publication               |

### Associated documents

| Title   | Location   |
|---|--|
| Wholesale InterConnect and SES Reference Offer  | All available online or from the NBI Account Manager |
| Wholesale InterConnect and SES Technical Manual |  |
| Wholesale InterConnect and SES Process Manual   |  |

### Acronyms

|       |   |
|-------|---|
| Co-Lo | Co-Location                             |
| CPE   | Customer Premises Equipment             |
| E-NNI | External – Network to Network Interface |
| IBH   | In-Building Handover                    |
| ISH   | In-Span Handover                        |
| NTU   | Network Termination Unit                |
| ODP   | Optical Distribution Point              |
| OLT   | Optical Line Terminal                   |
| PoH   | Point of Handover                       |
| SES   | Symmetric Ethernet Service              |
| UWG   | Universal Wholesale Gateway             |
| VLAN  | Virtual Local Area Network              |

## Definitions and Interpretation

In this Agreement, words and expressions have the following meanings:

|  |  |
|--|--|
| “Agreement”                                  | means the terms and conditions applicable to the provision of the Product as set out in this agreement and its Schedules (which may be updated by NBI from time to time and published on NBI’s website)  |
| “Bitstream and VUA Product Process Manual”   | means the document published on NBI’s website that sets out the processes for Service Provider eligibility, ordering, fault management and billing for the Product(s)  |
| “Bitstream and VUA Product Technical Manual” | means the document published on NBI’s website that provides a detailed description of the Bitstream and VUA Products that will be made available to Wholesale Service Providers (WSP) and Retail Service Providers (RSP)   |
| “Co-Location Reference Offer”                | means the specification, terms and conditions applicable to the Co-Location Product as set out in this Agreement, the Service Schedule titled “Building and Cabin Co-Location Product” and as specified in the NBI Building and Cabin Co-Location Product Description, the NBI Building and Cabin Co-Location Access and Health & Safety Requirements, the NBI Building and Cabin Co-Location Service Level Agreement and the NBI Building and Cabin Co-Location Price List (all as published on the NBI website and as may be updated and re-published from time to time) |
| “Co-Location Site”                           | means the premises, property or site at which or upon which the Co-Location Product is provided by NBI (as may be notified by NBI to the Service Provider from time to time)   |
| “Customer”                                   | means a person subscribing to the Service Provider Service, including without limitation, End Users and resellers  |

|  |   |
|--|---|
| “Department”                           | means the Department of Communications, Climate Action and Environment  |
| “Deployment Area (DA)”                 | means the geographical area that is served by an Optical Line Terminal (OLT) deployed by NBI for the purpose of providing Product(s) and Services to Premises located in that geographical area   |
| “End User”                             | means the customer of the Service Provider on whose behalf the Service is ordered   |
| “Equipment”                            | means any equipment owned, leased or licensed by the Service Provider and used by the Service Provider in connection with its use of the Products   |
| “InterConnect Product”                 | means, if applicable to the Service Provider, the InterConnect Product as described in more particular detail in the Wholesale InterConnect and SES Reference Offer   |
| “Minister”                             | means the holder of the office of the Minister for Communications, Climate Action and Environment and any successor to that role  |
| “NBI Operational Environment”          | means the web portal and web services provided by NBI that can be accessed by the Service Provider to perform eligibility checks, place orders for Products, create or schedule appointments for End Users and create or track faults for End Users   |
| “Optical Network Termination” or “ONT” | means wholesale customer premises equipment (WCPE), that is the network termination device located in the End User Premises that is used to terminate NBI’s Access Network and is the physical network termination point for the Wholesale Service Provider’s network and to which the Service Provider’s equipment is directly connected. The RJ45 Ethernet port on the WCPE provides the Demarcation Point between NBI Network and Service Provider’s equipment |

|                              |   |
|------------------------------|---|
| “Point of Handover” or “PoH” | means the point at which NBI hands over the conveyance of a Wholesale Product to the Service Provider so that the Service Provider is then able to use a number of connection options to connect the PoH to its own network                 |
| “Product(s)”                 | means each variant of the Products provided by NBI under this Agreement and as described in more detail in Schedule 1 and which may be updated by NBI from time to time in accordance with the NBP Agreement and published on NBI's website |
| “RSP(s)”                     | means a retail service provider including the Service Provider which has entered into a Standard Access Agreement with NBI for the Products and will provide services to Customers or Prospective Customers                                 |
| “SESPProduct”                | The Symmetric Ethernet Service (SES) product is as described in more particular detail in the Wholesale InterConnect and SES Product Reference Offer  |
| “Working Day”                | means 08:00 – 20:00, during any Working Day other than Saturdays, Sundays, or public holidays as defined in the Second Schedule to the Organisation of Working Time Act, 1997   |

# 1 Introduction

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***Consultation on the service levels contained in this document are ongoing with Industry. The service levels will be presented at the monthly Industry forums for discussion and clarification. NBI expects the consultation process to continue until the end of Q2 2020 at which time the full suite of service levels will have been consulted upon and any changes to the documentation will have been agreed and completed.***

This document describes the service levels relating to the provision and assurance of the Wholesale InterConnect and SES products offered by NBI. The service levels relate to orders and fault tickets placed via the service portal GUI / Webservice application.

The service is provided subject to the terms and conditions as set out in the relevant Wholesale InterConnect and SES Reference Offer document.

NBI is committed to on-going improvements of the service levels and will work closely with Service Providers to improve and enhance them.

## 1.1 Supported Products and Software

Each variant of the Products provided by NBI under this Agreement and as described in more detail in the Wholesale Wholesale InterConnect and SES Reference Offer.

## 1.2 Service Levels

The service level defines the service hours, the service access methods and the service delivery targets available to the Service Providers. This document defines the service levels with regard to the ordering, fulfilment and assurance of the InterConnect and SES products.

## 2 Provisioning Service Levels

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### 2.1 InterConnect and SES Provisioning Access Methods and Hours

InterConnect and SES orders can be placed via the web portal. The web portal provided by NBI is available 24 x 7 x 365.

InterConnect and SES orders shall be installed during Working Days.

### 2.2 InterConnect & SES Order Provisioning Service Delivery Targets

Details of the ordering process can be found in the Wholesale InterConnect and SES Process Manual.

InterConnect service delivery targets will vary depending on the product ordered as outlined in Table 1.

| <b>Table 1: InterConnect Products Service Delivery Targets</b> |                        |            |                        |                      |
|--|------------------------|------------|------------------------|----------------------|
|  | Target delivery        | Order type | 10 Gbit/s InterConnect | 10 Gbit/s LAG / LACP |
| Third Party Premises   | 95% of the time within | Standard   | <N> days               | <b>n/a</b>           |
| In-building Handover   | 95% of the time within | Standard   | <N> days               | <N> days             |
| In-Span Handover   | 95% of the time within | Standard   | <N> days               | <N> days             |

NOTE: The service delivery timelines in this table are blank as they have not yet been agreed between NBI, industry and the Minister.

The SES Products delivery targets are as described in Table 2.

| <b>Table 2: SES Products Service Delivery Targets</b> |                        |               |          |
|---|------------------------|---------------|----------|
| SES Product   | Target Delivery        | Handover Type | Days     |
| 200 Mbit/s XGS-PON                                    | 95% of the time within | IBH           | <N> days |
| 500 Mbit/s XGS-PON                                    | 95% of the time within | IBH           | <N> days |
| 1 Gb XGS-PON  | 95% of the time within | IBH           | <N> days |
| 5 Gb XGS-PON  | 95% of the time within | IBH           | <N> days |
| 200 Mbit/s XGS-PON National                           | 95% of the time within | IBH           | <N> days |
| 500 Mbit/s XGS-PON National                           | 95% of the time within | IBH           | <N> days |

NOTE: The service delivery timelines in this table are blank as they have not yet been agreed between NBI, industry and the Minister.



## 3 Network Assurance, Maintenance and Repair Service Levels

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### 3.1 Network Assurance Maintenance and Repair (NOC) Service Hours

Wholesale Customer Operations Service Hours: 08.00 – 20.00 Monday to Saturday.

Network assurance maintenance and repair (NOC) Service Hours: 24 x 7 x 365.

### 3.2 End User Assurance, Maintenance and Repair Access Methods

The web portal and web services provided by NBI that can be accessed by the Service Provider to create or track tickets for Network faults, Service faults and change requests and shall be available 24 x 7 x 365.

NBI Wholesale Customer Operations service desk: 01-XXXXXXX TBC.

NBI NOC: 01-XXXXXXX TBC.

### 3.3 End User Assurance, Maintenance and Repair Service Delivery Targets

NBI is responsible for the provision, repair and maintenance of the InterConnect from the NBI aggregation equipment node to the demarcation Point of Handover (PoH).

#### 3.3.1 Issue Classification

Assurance, Maintenance and repair tickets are categorised into severity levels based on the volume of End Users impacted.

| <b>Table 3: Residential and Business Issue Classification</b> |                           |
|---|---------------------------|
| <b>Residential &amp; Business</b>                             |                           |
| <b>Severity Levels</b>  | <b>End Users affected</b> |
| Severity 1 Residential  | >1000                     |
| Severity 1 Business   | >500                      |
| Severity 2 Residential  | 500 -999                  |
| Severity 2 Business   | 250 - 499                 |
| Severity 3 Residential  | 100 -499                  |
| Severity 3 Business   | 50 - 249                  |

### 3.3.2 Performance Levels

The following table describes the target resolution times based on the severity of the incident.

| <b>Table 4: Performance Level Targets</b> |  |                          |
|---|--|--------------------------|
| <b>Incident severity</b>                  | <b>Description</b>   | <b>Performance level</b> |
| Severity 1                                | The earlier of the time NBI becomes aware of the incident and the time NBI notifies the Service Provider of Incident Resolution or restoration | 4 hours                  |
| Severity 2                                | The earlier of the time NBI becomes aware of the incident and the time NBI notifies the Service Provider of Incident Resolution or restoration | 8 hours                  |
| Severity 3                                | The earlier of the time NBI becomes aware of the incident and the time NBI notifies the Service Provider of Incident Resolution or restoration | 24 hours                 |
| Severity 4                                | The earlier of the time NBI becomes aware of the incident and the time NBI notifies the Service Provider of Incident resolution or restoration | 5 working days           |

#### Assurance target suspensions

- NBI is awaiting co-operation from the Service Provider with testing the service.
- Where a Service Provider fault ticket is at a status that is awaiting Service Provider validation or input.
- NBI awaiting access to the third party premises/co-lo site.
- When proceeding would result in a health and safety risk.
- Where stoppage is requested by the Service Provider or End User.
- Where a third party restricts NBI from working on the resolution of a fault.
- Where a Force Majeure event is ongoing.

## 4 Billing and Billing Performance Levels

There are connection, rental and one-off charges associated with the InterConnect and SES products. All details of the relevant charges are outlined in the NBI network Price List which is available on the NBI website or directly from the Service Provider's Account Manager.

Rental charges are billed annually in advance and include any broken period rentals from the time of installation.

Invoices are issued annually detailing connection, one-off and rental charges payable.

Table 5 outlines the performance targets for Billing Enquiries.

| <b>Table 5: Billing Enquiry Performance Targets</b> |               |  |
|---|---------------|--|
| <b>Metric</b>                                       | <b>Target</b> | <b>Detail</b>  |
| Billing Enquiries Automated Response                | 100%          | Automated Response via UWG within 5 seconds of the Service Provider reporting a Billing Enquiry via the UWG              |
| Bill Enquiry Update                                 | 80%           | Update provided by NBI to the Service Provider on the Billing Enquiry within 5 working days                              |
| Bill Enquiry Update                                 | 100%          | Update provided by NBI to the Service Provider on the Billing Enquiry within 10 working days                             |
| Bill Enquiry Resolved                               | 90%           | Resolved to the Service Providers satisfaction within 20 working days from the date the bill enquiry was received by NBI |
| Bill Enquiry Resolved                               | 100%          | Resolved to the Service Providers satisfaction within 30 working days from the date the bill enquiry was received by NBI |

## 5 Network Performance levels

Below is a list of the key attributes that are associated with the InterConnect offering.

| <b>Table 6: Network Performance Levels</b>   |           |
|--|-----------|
| <b>InterConnect Performance Parameters</b>   |           |
| Minimum download speed between RSP CPE and PoH   | 10 Gbit/s |
| Maximum utilisation of backhaul link between first point of active aggregation and PoH | 80%       |

## 6 Service Provider Obligations

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### 6.1 Service Provider InterConnect Obligations

|   |
|---|
| A Service Provider shall submit a 12-month rolling forecast on a quarterly basis to NBI outlining the location and types of InterConnects they wish to order  |
| The Service Provider shall ensure that only fully trained and authorised personnel have access to the NBI web portal and web services to raise an order, a network or service fault or a change request   |
| For IBH the Service Provider must have a Co-Location agreement in place with adequate rack space identified and in place  |
| Correctly isolating the service impacting element is absolutely vital to ensuring a quality End User service restoration experience. The Service Provider is responsible for completing diagnostic checks before raising a ticket and following the guidelines for fault handling |

### 6.2 Service Provider SES Obligations

|   |
|---|
| A Service Provider shall submit a 12-month rolling forecast on a quarterly basis to NBI outlining the location and types of InterConnects they wish to order  |
| The Service Provider shall ensure that only fully trained and authorised personnel have access to the NBI web portal and web services to raise an order, a network or service fault or a change request   |
| The Service Provider shall ensure an InterConnect is available from the PoH that serves the Service Provider's SES customers  |
| Any equipment beyond the SES NTU is the responsibility of the Service Provider / End User. The Service Provider must provide their own router or other CPE necessary to provide End User services in the premises   |
| The Service Provider must provide their own backhaul facilities to connect their network directly at each Point of Handover (PoH). All traffic from SES End Users within the PoH area is handed over at the POH, and the Service Provider is responsible for the transport of that traffic from the POH to their own core network |
| Correctly isolating the service impacting element is absolutely vital to ensuring a quality End User service restoration experience. The Service Provider is responsible for completing diagnostic checks before raising a ticket and following the guidelines for fault handling   |

## 7 NBI Obligations

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### 7.1 NBI InterConnect Obligations

|   |
|---|
| NBI shall provide the Service Provider with access/logins(s)to the web portal and web services for the provisioning of orders and opening of network or service ticket requests |
| NBI shall provide repair performance reports on a quarterly basis   |
| NBI shall provide instructions and templates for gathering of information from incidents  |
| NBI shall notify Service Provider of any NBI network faults that may affect Service Providers' customers  |

### 7.2 NBI SES Obligations

|   |
|---|
| NBI shall provide the Service Provider with access/logins(s)to the web portal and web services for the provisioning of orders and opening of network or service ticket requests |
| NBI shall provide repair performance reports on a quarterly basis   |
| NBI shall provide instructions and templates for gathering of information from incidents  |
| NBI shall notify Service Provider of any NBI network faults that may affect Service Providers' customers  |